



Department of Commerce

Innovation is in our nature.

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Volume 7, Issue 1



Piaggio has introduced a Hybrid MP3, a three-wheeled plug-in hybrid scooter. 0-60 kph in 5 seconds, 447 mile fuel tank, 141 mpg, electric range only is 12 miles. <http://www.piaggiomp3.com/new/main.html>

Energy Policy Division - Energy Status Report

Energy Price Summary

One year ago last week was the high point for fuel prices during the spectacular energy price run-up of 2007-08. Gasoline prices in Washington state reached an average of \$4.35 per gallon and diesel flirted with five dollars: see chart on page 2. Spot market oil prices reached \$145 per barrel and natural gas was selling for \$12 per Mcf. Of course such high energy prices couldn't be sustained as the global economy was rapidly slowing and a serious financial crisis was only a matter of weeks away. Looking back there is some consensus that the rapid economic growth of 2004-07 and the speculative housing and financial bubbles helped drive prices for energy products, indeed prices for most commodities, to unrealistically high levels. Some pundits view the high energy of 2007-08 as the straw that broke the camels back—driving the global economy into recession.

for the 'energy shock' that we experienced during 2007-08 was that energy expenditures as a percent of household or business budgets had been declining steadily since the mid 1980's. We had come to base our lifestyle and business decisions on the expectation of cheap energy.

So what can we expect for energy prices in the near future. Not surprisingly, energy analysts and economists have a wide range of opinions. The general consensus is that energy prices will remain low for 2009 and 2010, but will start to rise towards the end of 2010 as the US and the global economies recover. By 2012 we may see prices similar to 2007 if economic growth is robust, at least for petroleum products. Debt problems in the US might result in dollar depreciation and higher relative prices. Over the long-term, 20 years or so, adoption of alternative energy sources such as biofuels and wind and solar power are likely to displace and dampen price increases for traditional 'fossil' fuels.

Since the last newsletter, the WTI crude oil price tumbled to \$60 per barrel; driven by fears of a lingering recession. The last couple of days have seen the oil price bounce back a bit with the reporting of positive economic data. The national average gasoline price declined for the 4th week and is at \$2.5 per gallon. This is a common summer pricing pattern—a peak in June as people being to take vacations

and refineries finish switching to low vapor pressure summer fuel blends. In Washington the average gasoline price is down 3 cents this week to \$2.74 per gal., while diesel price is at \$2.69. Fuel prices are about \$1.50 per gallon lower than we observed last year at this time, but up over \$1 from the lows of December 2008.

NYMEX natural gas for July delivery was \$3.63 per MMBtu. Gas at Sumas has dropped sharply with the arrival of hot weather in the Northwest: now a very low \$2.48 per MMBtu. Historically crude oil and natural gas used to sell at a price ratio of 7 to 1. Since 2006 the ratio has increased significantly and now exceeds 10 to 1: see chart pg 4. In essence natural gas and oil are no longer substitutes and their respective market prices are not linked. Gas storage remains very strong for the US and the region: national storage increased by 90 billion cubic feet to 2,866 Bcf or 19% above the 5-year storage average. Storage is forecast to top out over 4,000 Bcf by late Sept.

Continuing to reflect the abundant spring runoff, wholesale Peak Mid Columbia electricity prices remain low. Mid C trading hub (peak) prices ranged from 21 to 37 \$/MWh. The two-week average electricity spot market price was \$27 a increase of \$3 per MWh from the previous report. Federal dam power production was a healthy 11,445 aMW in May.

Inside this issue:

Electricity, Petroleum & Natural Gas Prices

2

River & Snow Pack Information

3

Power Exchanged

3

Power Generation in the Pacific NW

3

Eyes on the Earth

3

Energy Information

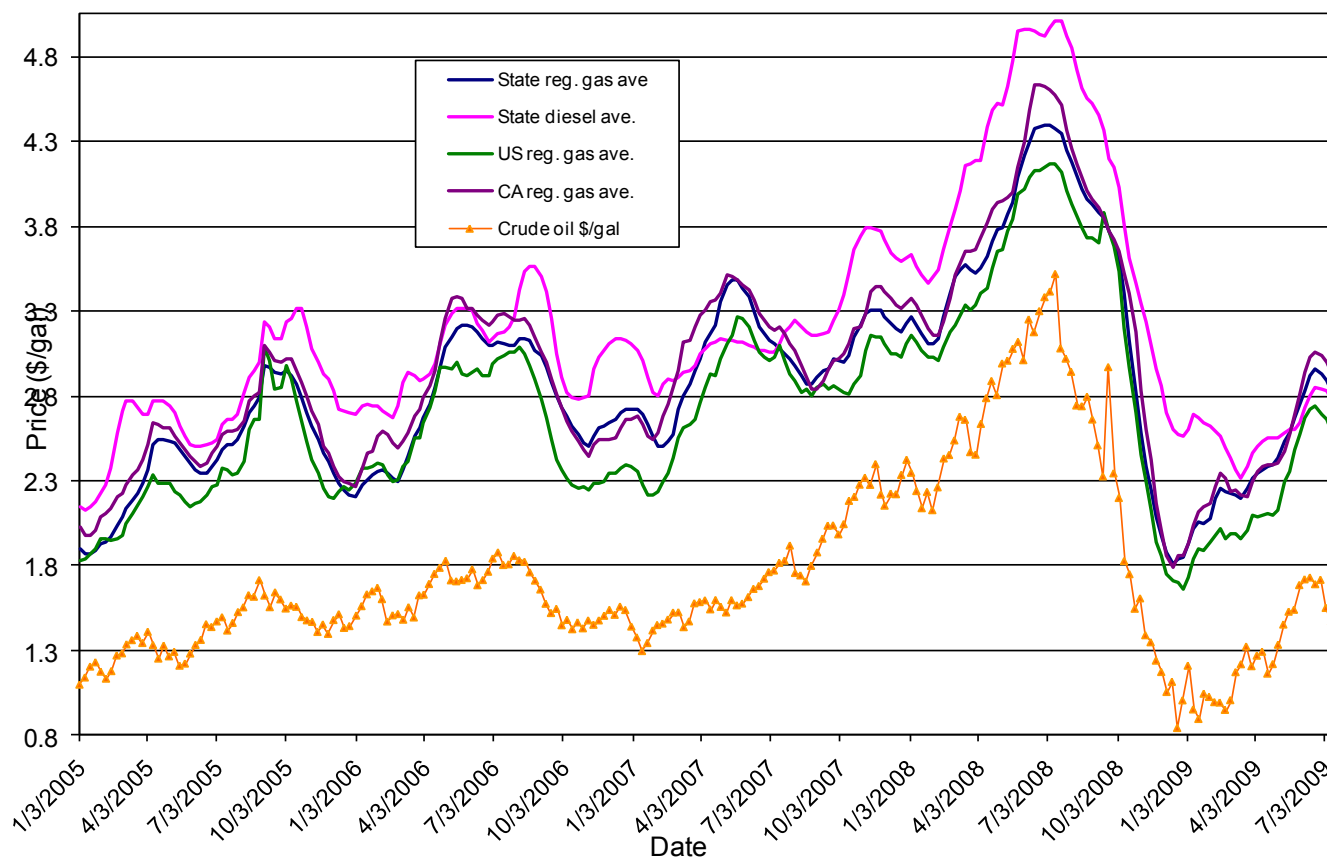
4

Energy Headlines

5

We know energy prices were high but how much were we spending on energy during 2007 and 2008? The chart on page 3, with preliminary data for 2007, reveals that the nation was spending about 9% of GDP on energy while Washington state expenditures represented 7.25% of GSP—high percentages relative to the 1990's but not that different from energy expenditures seen during the 1970' and 1980's. Expenditures for 2008 have not been reported by the EIA, but are likely to come in about 1 percent higher than the 2007 values. Part of the reason

WA State Gasoline and Diesel Prices: Jan. 05 - July 09



Electricity, Petroleum & Natural Gas Prices

- Weekly Range at Mid-C: \$21-37 per MWh, Ave. = \$27 (year ago \$81)
- Approximate Change from previous report \$3 per MWh
- Pre-2000 typical price range \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$59.63 per barrel (year ago: \$139)
- Seattle gasoline price (6/30) \$2.76 per gallon (year ago \$4.34)
- Gasoline futures (NYMEX next month) \$1.72 per gallon
- State Diesel price (6/30) \$2.72 per gallon (Year ago \$4.87)
- Heating oil futures (NYMEX next month) \$1.60 per gallon
- Natural gas (cash), Sumas Hub: \$2.48 per million BTU (year ago \$11.54)
- Natural gas futures (NYMEX next month) \$3.63 per million BTU
- Approximate change from 2 weeks ago Oil: -10 \$ per barrel; Nat. gas: -0.4 \$ per MMBtu
- Ethanol (CBT next month contract) \$1.51 per gallon, Corn \$3.17/bushel
- E85 (national average) \$2.69 per gallon gasoline energy equivalent

River & Snow Pack Information

- Observed June. stream flow at The Dalles: 84.1% of average
- Observed June precipitation above The Dalles: 120% of average
- Forecast January-July 2009 runoff at The Dalles: 91.1 MAF, 85% of average
- May estimate of 2009 snow pack: 93% of average
- Federal hydropower generation in June: 11,445 aMW, 2004-2008 average: 11,339 aMW
- Reservoir content (Libby, Hungry Horse, Grand Coulee, Dworshak): June 88.8%, 5-year avg. 91.5%

Power Exchanged: (updated June 15)

Average flow of power during the last 30 days

- California (exported to) 4,141 MW
- Canada (exported to) 828 MW
- Net power exported: 4,969 MW

Eyes on the Earth (data as of June 2009)

Arctic Sea Ice: ↓ 38% per decade since 1979

Carbon Dioxide: ↑ 389 parts per million

Sea Level: ↑ 50 mm since 1992 or 4-8" over last century

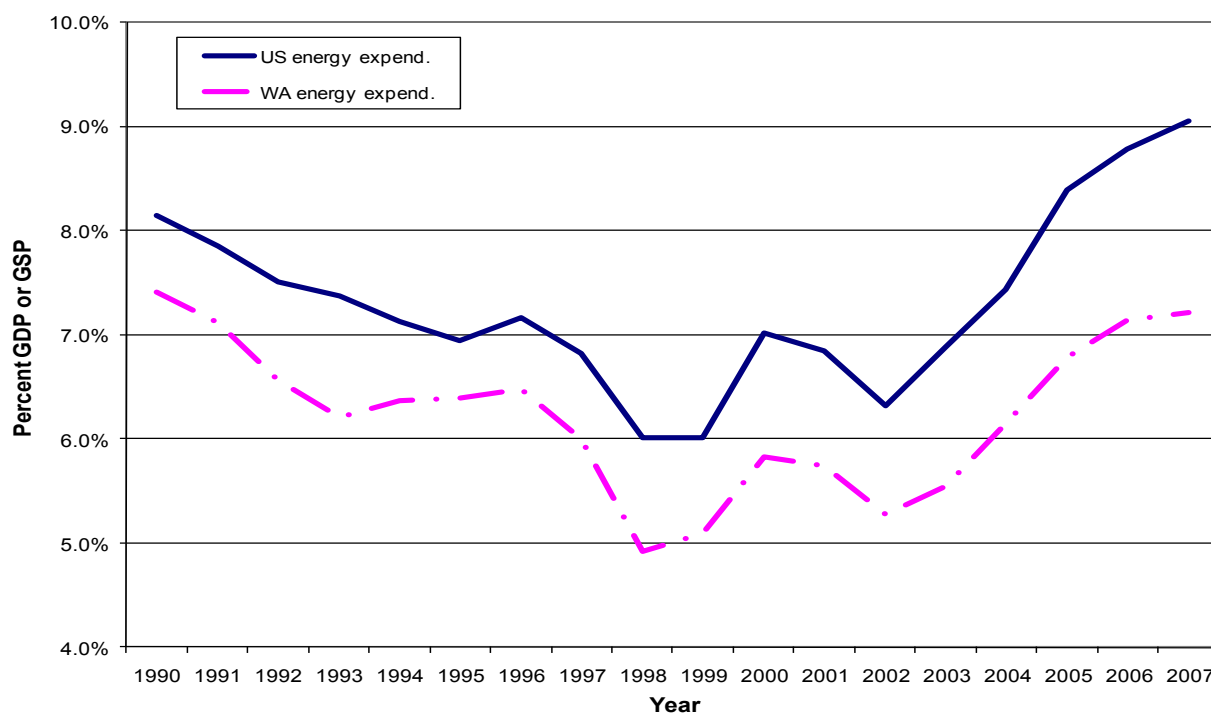
Ozone Hole: 10.4 million square miles (latest)

Global Temperature: ↑ 1.3° F average since 1895

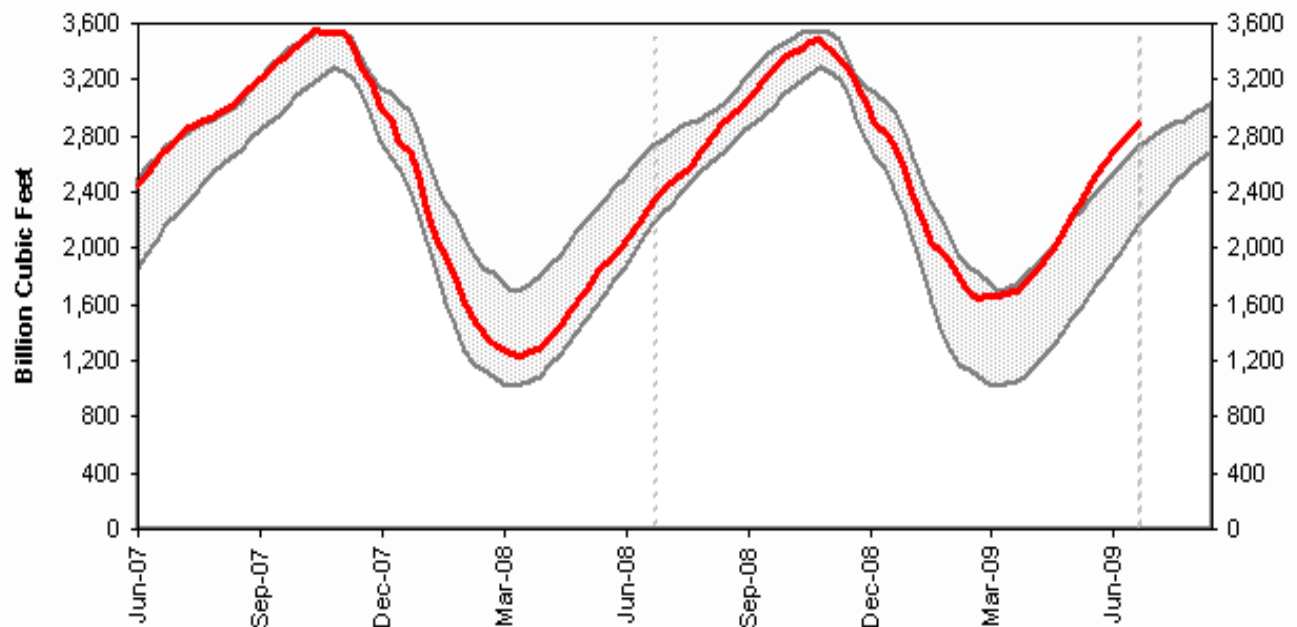
Power Generation in the Pacific Northwest

Want to find out about power generation in the state or around the corner from where you are? The NW Power and Conservation Council has a great interactive map (using Google Earth). See it at <http://www.nwcouncil.org/maps/power/Default.asp>

US and WA Energy Expenditures 1990-2007



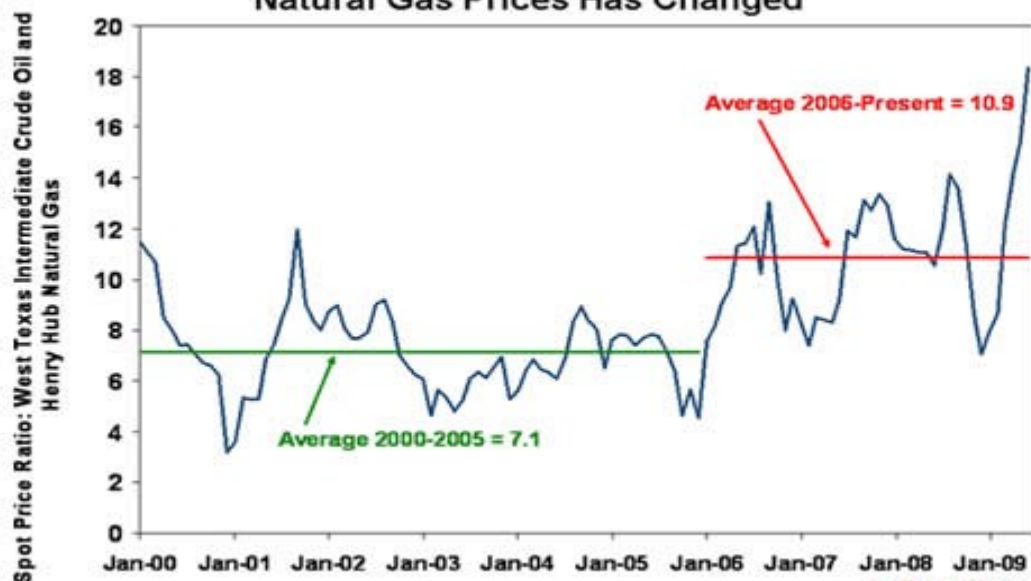
Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2004 through 2008.

Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

The Relationship Between Crude Oil and Natural Gas Prices Has Changed



Source: Short-Term Energy Outlook, July 2009.

Energy Headlines

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2008 ENERGY STAR Qualified New Homes Market

ENERGY STAR has compared the number of ENERGY STAR qualified new homes to the number of permitted privately owned housing units in each state. For 2008, ENERGY STAR compliance reached almost 17% of the market in new home building, almost 100,000 new homes earned ENERGY STAR rating. They showed state participation from 0% to over 20%.

The ENERGY STAR mark on a new home signifies that it uses significantly less energy for heating, cooling, and water heating than a standard home built to code.

Iowa is the leader in market penetration with 64%, which was 3,962 ES homes out of 6,217 permitted homes.

Nevada was second with 63%, or 4,455 homes out of 7,033 permitted.

Hawaii has 54%, or 1,347 homes out of 2,483 and Texas was at 41% with 31,995 homes out of 78,760.

ENERGY STAR shows a comparison energy savings of 100,000 new homes equaling:

- Eliminating the emissions from 49,000 vehicles
- Saving 296,400,000 lbs of coal
- Planting 81,000 acres of trees
- Saving homeowners \$45 million on their utility bills

Washington state ranks in with an 8.3%.

The site shows 242 home builders and developers in our state that have partnered with ENERGY STAR. Of these, 7 builders have made a commitment to build 100% of their homes to ES performance guidelines.

The information does not measure other energy efficiency efforts within the state. (Data from <http://www.energystar.gov/index.cfm?fuseaction=qhmi.showHomesMarketIndex>)



Is Your Clothes Washer Over 10 Years Old?

Clothes washers manufactured before 1999 use more than 4 times the energy of today's ENERGY STAR models. If every American home replaced their old washer with an ES rated model, we could save:

- Enough water to fill the Rose Bowl nearly 8,000 times
- Enough energy to light nearly 6.3 million homes for a year
- More than \$5.3 billion in annual energy coast
- Annual greenhouse gas emissions equal to the emissions of more than 1.5 million cars.

Energy Star has great information on cost savings and rated washers (and other products such as dishwashers, heat pumps, furnaces, water heaters and more), even stores that offer the ENERGY STAR appliances. Go to http://www.energystar.gov/index.cfm?fuseaction=find_a_product, and for the calculator go to http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorConsumerClothesWasher.xls

Recycle Your Bottle Caps

Most recyclers don't want you to put your bottle caps into their bins. But—**AVEDA** has a new program that takes most rigid plastic caps. See what's up at <http://aveda.aveda.com/aboutaveda/caps.asp>



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906 Columbia St SW, Davis Williams Bldg., Floor 5
Mail stop: 43173, Olympia WA 98504-3173
Phone: 360.725.3112